

## **User Guide**



## **Portsmith Ethernet Cradle**

Model Numbers: PS6PM5E, PS6SPM5E-6 & PS6HVE

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## Introduction

## **About the Portsmith Ethernet Cradle**

The Portsmith Ethernet Cradle is a network connectivity accessory for Palm OS<sup>™</sup> PDA's. Through our Ethernet Cradle, users can download or synchronize with corporate network data, server-resident data, or access a live Internet connection. This user guide provides an overview of setting up and using the Portsmith Ethernet Cradle.

In addition to accessing data and the Internet, the Portsmith Ethernet Cradle also provides recharging capabilities on applicable handheld models.

### **Minimum Requirements**

The following minimum requirements must be met for your network, PDA, and desktop computer:

- Dynamic host configuration protocol (DHCP) server configured and operational on the network
- 10 Mbps or 10/100 Mbps auto-sensing network connection
- 10BaseT Ethernet cable
- PDA running the Palm Operating System
  - Palm M500 or M505 if you have the PS6PM5E Cradle
  - Handspring Visor, Visor Deluxe, Visor Platinum if you have the PS6HVE Cradle
- The AC power adaptor for Portsmith Ethernet Cradle
- Portsmith Ethernet Cradle
- A desktop computer with HotSync Manager® installed and configured to use a local serial or USB synchronization cradle. This computer must also have a web browser and Internet access.

### Optional

- HotSync® Desktop installed on the user's networked desktop computer. This is one method for the PDA to synchronize with the desktop computer over the network.
- Other third party desktop synchronization software which supports network synchronization such as PumaTech Intellisync® installed on both the PDA and the desktop computer. These applications provide alternate methods to synchronize the PDA with the desktop computer over the network.
- Server-based synchronization software such as XTNDConnect® Server or HotSyncServer installed on both the network and the PDA.
- Internet applications such as, PalmScape, MultiMail or AvantGo can be installed on the PDA and used to communicate through the Portsmith Ethernet Cradle to an Internet connected network.

## Chapter 1

## **Preparing to Use the Portsmith Ethernet Cradle**

### **Installation Overview**

Before using the Portsmith Ethernet Cradle, you and your network system administrator must properly configure your hardware and software. Below is a summary of the steps required for proper configuration. This chapter provides details about each step listed below.

- Connect the Ethernet cradle to the network.
- Install and configure the Portsmith Cradle Driver on your PDA.
- Install and configure network synchronization software or Internet communication software.

## **Connect the Ethernet Cradle to the Network**

To use the Ethernet cradle, it must be connected to a 10Base-T or 10/100Base-T Ethernet network that is setup for TCP/IP communication and DHCP configuration.

### To connect the Ethernet cradle to the network:

- 1. Connect one end of a 10Base-T Ethernet cable to the RJ45 connector on the back of the Ethernet cradle.
- 2. Connect the other end of the Ethernet cable to an active 10/100Base-T Ethernet network connection.
- 3. Connect the round plug of the AC adaptor cable into the AC adaptor connector jack on the back of the Ethernet Cradle, then plug the AC adaptor into a standard electrical outlet.

NOTE: DHCP services must be available to assign the Ethernet cradle an IP address, a gateway IP address, a subnet mask, and a DNS server.

Once connected to a network and a power supply, the Ethernet cradle continuously attempts to establish a link with the local DHCP server to collect network parameters and obtain an IP address. You can monitor this querying process, which continues until proper configuration is achieved, by observing the operational indicator LEDs on the RJ45 Ethernet connector on the back of the Ethernet cradle. See the table on the following page for a description of LED indicators.

### **LED Indicators**

LED color and behavior	Indication
Amber at half brightness	Power on
Amber blinking	Querying the DHCP server to collect network parameters
Amber at full brightness	Network configuration data received
Green at half brightness	Network link established
Green blinking	Data being transmitted

## Chapter 2

## **Installing and Using the Portsmith Cradle Driver on Your PDA**

The Portsmith Cradle Driver must be installed and configured on the PDA before the PDA can communicate through the Ethernet cradle. The Portsmith Cradle Driver automatically detects if the PDA is in the Portsmith Ethernet Cradle and automatically configures the PDA for TCP/IP communication over the attached Ethernet network.

### **Installing the Portsmith Cradle Driver**

The Portsmith Cradle Driver is named PSCradle.prc. This driver may be downloaded from the Portsmith web site on the Internet with the following steps.

- 1. On a PC configured for HotSync® Manager local synchronization through a serial or USB synchronization cradle, open the web browser.
- 2. In the address bar of the web browser, enter the following address: <u>http://www.portsmith.com/psdwnld</u>.
- 3. When the web page appears, select the appropriate model of cradle and PDA.
- 4. Select the link to download the Portsmith Cradle Driver (PSCradle.prc)
- 5. Your web browser should prompt you to either open or save the file. Select the open option.
- 6. If HotSync® Manager is configured for more than one PDA, the HotSync® Install Tool will prompt you to select where to install the file. Select the identity associated with the PDA where you want to install the driver.



- 7. If you wish to enable the PDA to synchronize over the network with this desktop machine, you must enable network mode in HotSync® Manager. On a Windows® computer, this can be done by right clicking on the HotSync® icon in the Windows® system tray. If the "Network" option is not checked, Select it by clicking on "Network" in the menu.
- 8. Perform a local synchronization between the desktop computer and the PDA where you want to install the driver. This is done by placing the PDA in the local HotSync® cradle and pressing the HotSync® button. When the synchronization completes, the driver will be installed on the PDA.

*Tip: You can also install the Portsmith Cradle Driver on a PDA by beaming it from another PDA on which it has already been installed.* 



## **Operation of the Portsmith Cradle Driver**

The Portsmith Cradle Driver is designed to provide seamless TCP/IP connectivity without user intervention. The driver automatically provides the following functions:

- Detection of the PDA's presence in a Portsmith Ethernet Cradle.
- Configuration of the PDA to provide TCP/IP communication over the attached Ethernet network. This includes IP address, subnet mask, default gateway, and DNS server.
- Session termination upon removal from the cradle.
- Connection and docking status information and visual feedback.
- Optional synchronization upon insertion into the cradle.
- Optional network connection establishment upon insertion into the cradle.
- Preservation of modem communication settings, if set.

Upon insertion into the Ethernet cradle, the Driver will briefly display the splash screen shown below while it is configuring the communication session. This is visual confirmation that the PDA is docking with the cradle.



### The Status and Configuration Screen

The driver's status and configuration form may be viewed by selecting the PSCradle

icon in the Palm Application Launcher . The following form will be displayed.

The items on this screen are described below:

#### **Cradle Status:**

This item shows if the Driver has detected the PDA's presence in a Portsmith Ethernet Cradle.

- **Docked**: The PDA is currently in a Portsmith Ethernet Cradle.
- **Undocked**: The PDA is not currently in a Portsmith Ethernet Cradle.

#### **Connection Status:**

This item shows the status of the connection to the Portsmith Ethernet Cradle

- Active: There is currently a connection established.
- **Inactive**: The connection is not currently established.
- **Disconnecting**: The connection is being terminated.



#### **Firmware Ver:**

If the PDA is in a Portsmith Ethernet Cradle, this will show the current firmware version installed on the Portsmith Ethernet Cradle.

#### **Driver Ver:**

The current version of the Portsmith Cradle Driver on the PDA.

#### **Driver Mode:**

This item allows the user to configure the current mode of the Portsmith Cradle Driver.

- **Enabled**: The driver is enabled and will configure the TCP/IP communication session when it detects the PDA's presence in a Portsmith Ethernet Cradle. In this mode, the driver does not actually open the TCP/IP session until an application tries to communicate over TCP/IP. This behavior preserves battery life. It is the default configuration of the driver
- **Disabled**: The driver is disabled. It will perform no activity while in this mode.
- **Automatic HotSync**: This mode is the same as the Enabled mode except the driver simulates the press of the cradle's HotSync button when the driver detects the PDA's presence in the Portsmith Ethernet cradle.
- Automatic Connect: This mode is the same as the Enabled mode except the driver opens the TCP/IP connection upon cradle presence detection rather than waiting for an application to attempt to communicate over TCP/IP. Some applications require this behavior. (*Note: This mode can drain the batteries of Alkaline battery powered PDAs.*)
- **Configuration Panel:** This mode is the same as the Enabled mode except the driver will display its configuration form when the cradle is detected.

#### **PDA Functionality Buttons:**

- **Connect**: Establish a connection.
- **Disconnect**: Disconnect the current connection.
- **HotSync**: Perform a HotSync. If the connection isn't currently established, it will establish a connection first.

### Using the Portsmith Ethernet Cradle to HotSync

Once the PDA has been docked with a Portsmith Ethernet Cradle, there are three different ways that you can HotSync over the network.

- 1. Pressing the button on the Portsmith Ethernet Cradle itself, or
- 2. Tapping the HotSync Icon 🗭 from the Palm Application Launcher 🕥 on the PDA, or
- 3. Tapping the HotSync Button in the Portsmith Cradle Driver.

# Using the Portsmith Ethernet Cradle for a Network Connection:

Once the PDA has been docked with a Portsmith Ethernet Cradle, there are three different ways that you can utilize the network connection. After the connection has been established, you may use any application that requires a network connection.

1. Go into PSCradle from the Palm Application Launcher and tap the "Connect" button or

2. Go to the Network section of the Preference Panel 🐼 from the Palm

Application Launcher and tap the "Connect" button or,

3. Go into the application you wish to use, most applications attempt to connect using the current settings. The current settings have been set to work with the Portsmith Ethernet Cradle when it was inserted.

### **Install & Configure Network Synchronization Software**

Before the Portsmith Ethernet Cradle can be used to perform a Network Synchronization, third party synchronization software must be installed on both the desktop computer and the PDA that will be synchronizing with it. The software locates the desktop computer on the network being accessed via the Portsmith Ethernet Cradle.

**NOTE**: You might need the assistance of your network system administrator to install the software on your desktop.

#### To configure network synchronization:

- 1. Follow the software manufacturer's installation instructions to install the software on the desktop computer and the PDA.
- 2. Make sure the synchronization software is set up for use on a network.
- 3. Make sure the appropriate user name is selected in the synchronization software.
- 4. Place the PDA in the cradle attached to the local PC and press the synchronization button. This operation records network information about the desktop computer on the PDA. With this information, the PDA can locate the computer when a synchronization operation is performed over the network.

**NOTE**: To perform any synchronization with the desktop computer using the Portsmith Ethernet Cradle, the desktop computer must be on, the desktop synchronization software must be running, and the software must be set up for network use.

### Installing Server-based Network Synchronization Software

To configure server synchronization, follow the manufacturer's installation instructions to install the software on the server and the PDA(s).

The Portsmith Ethernet Cradle is designed to support any software that uses standard TCP/IP on the Palm Operating System. The Cradle's function has been verified with the applications listed below. For instructions on using and troubleshooting the software on your PDA or computer, see the software manufacturer's installation documentation.

#### Server-based Synchronization Software

- HotSyncServer
- XTNDConnect Server

#### Network Synchronization Software

- HotSync Manager
- Intellisync

#### **Network Software**

- PalmScape
- MultiMail
- AvantGo Client

## Chapter 3

## Troubleshooting

Use the table below to identify and correct problems you might encounter when setting up or using your Portsmith Ethernet Cradle.

## **Troubleshooting Matrix**

Problem	Solution
The amber LED remains dark	Make sure the power supply is securely
when the Ethernet cradle is	connected and receiving power.
plugged in.	
The amber LED blinks	Make sure a DHCP server is configured and
continuously,	operational on the network to which the
	Ethernet cradle is connected.
The amber LED is fully lit,	Remove the PDA from the Ethernet cradle
but no synchronization took	and reinsert it, making sure it is gently but
place, and the green LED did	firmly seated in the Ethernet cradle. Press the
not blink,	synchronization button.
The green LED remains dark.	Confirm that the Ethernet cable is a straight-
	through (or feed-through) cable.
	Confirm that the Ethernet cable is properly
	connected to the cradle and to a functioning
	10 or 10/100 Mbps auto-sensing network
	device.

## **Technical Support**

For additional information, *refer* to the FAQ List in the Support Section at <u>www.portsmith.com</u>. If you need additional assistance, you can contact technical support via e-mail at: <u>support@portsmith.com</u> or directly by phone at (208) 395-1300. Please provide the following information:

Your name, email address, and phone number
Portsmith Ethernet Cradle serial number
POT make, model, and operating system
PDA make and model
Synchronization software name and version
Detailed problem description

NOTE

You can find the Portsmith Ethernet Cradle serial number on the label on the bottom of the Cradle.

## **Appendix A**

## **Glossary of Terms**

**Desktop Computer:** A PC or Laptop where information resides that you perform a HotSync with using a USB or serial cradle.

**DHCP Server:** An acronym for Dynamic Host Configuration Protocol. A server that assigns an IP Address to the Portsmith Ethernet Cradle so it can access the Internet and the network.

DNS Server: Domain Naming System, converts host names (URL's) into internet addresses.

Gateway IP Address: IP address for the server that transfers data between networks.

**IP Address:** Internet Protocol Address, used to identify your Portsmith Ethernet Cradle from other devices on the network.

**Local Synchronization:** A synchronization using a USB or Serial Cradle directly connected to a Desktop Computer.

Network Synchronization: Synchronization with a Desktop Computer on the network.

**PDA:** Personal Digital Assistant, specifically Palm's m500/505, or Handspring's Visor/Deluxe/Platinum.

**Portsmith Cradle Driver:** A utility to aid in configuring a PDA for use with the Portsmith Ethernet Cradle.

PSCradle.prc: The filename of the Portsmith Cradle Driver.

Server-based Synchronization: Synchronization with a server that is attached to the network.

**Subnet Mask:** Used by networked devices to determine whether any given IP address is on the local network or outside the local network.

**TCP/IP:** Transfer Control Protocol/Internet Protocol, a standardized method of data communication over the Internet.

## Appendix **B**

## Warranties and <u>Other Product Information</u>

### **Hardware Warranty**

Portsmith, Inc. warrants this product against defects in materials and workmanship to the purchaser for a period of two (2) years from the date of shipment. This warranty is limited to a repair or replacement of the product. To obtain warranty service, the purchaser must first call Portsmith, Inc. for an RMA number, then return the product to Portsmith, Inc. for repair or replacement.

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#### License Agreement

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- 2. Copy the software onto any PDA connected to a Portsmith Ethernet Cradle.

You are not permitted to ...

- 1. Make modifications to any portion of this software product.
- 2. Merge this software product or any portion of it into another program or product.
- 3. Decompile, reverse engineer, disassemble or otherwise reduce the software to a human-perceivable form.

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## **Regulatory Information**

### FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio or television technician for help.

Portsmith, Inc. is not responsible for radio/TV interference caused by using unauthorized cables or by making unauthorized changes to this equipment.

### **European Union Notice**

Products with CE marking comply with both the EMC Directive (89/336/EEC) and the Low Voltage Directive (73/23/EEC) issued by the Commission of the European Community.

Compliance with these directives implies conformity to the following European Norms (in brackets are the equivalent international standards):

- EN55022 (CISPR 22) Electromagnetic Interference
- EN50082-1 (IEC801-2, IEC801-3, IEC801-4) Electromagnetic Immunity
- EN 60950 (IEC60950) Product Safety

### **VCCI** Notice

This is a Class B product, to be used in a domestic environment, based on the Technical Requirement of the Voluntary Control Council for Interference from Information Technology Equipment (VCCI). If this is used near a radio or television receiver in a domestic environment, it may cause radio interference. Please install and use the equipment according to the instruction manual.

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#### CAUTION

Changes or modifications not covered in this user guide must be approved in writing by the manufacturer Regulatory Engineering Department. Changes or modifications made without written approval may void the user authority to operate this equipment.

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Telephone: (888) 293-1302 Toll-Free in the U.S. or (208) 395-1300 from outside the U.S. Fax: (888) 501-8086 Toll-Free in the U.S. or (561) 619-5810 from outside the U.S.